NR 445 Technical Advisory Group Meeting 16
March 19, 2002 Notes
J.F. Friedrick Center
UW Madison

TAG Attendance: *Jim Beasom, Appleton Papers; Jose Bucio – AFL-CIO; Hank Handzel, Printing Industries of WI & WI Paper Council; John Hausbeck, Madison Public Health Dept.; Howard Hofmeister – Bemis Company; Brian Mitchell, WI Cast Metals Assoc.; Rudy Salcedo, Milwaukee Health Department; Jeff Schoepke, WMC; Rob Sherman, Kraft Foods; Pat Stevens, WI Transportation Builders Association; Caryl Terrell, Sierra Club; Mark Werner, WI Bureau of Public Health; Ed Wilusz, WI Paper Council; Caroline Garber, WDNR; Andrew Stewart, WDNR; Jeff Myers, WDNR*

Committee Attendance: *Tina Ball, Xcel Energy; Marc Bentley, Bentley Government Affairs; Tom Coogan, Commerce; Bernie Evans, ERM; Robert Fassbender, HFO Associates; Luis Fernandez, UW-Madison Safety Dept.; Myron Hafele, Kohler Co.; Christopher Proctor, Free Flow Technologies; Jerry Rodenberg, WDNR; Mark Steinberg, SC Johnson; Jill Stevens, Alliant Energy; Erin White, USEPA Region 5; Paul White, WI Electric Co., Susan Rosenburg, Madison, Gas & Electric.*

I. Welcome/Introductions/Review of Meeting Notes/Agenda Review

- **Welcome** – Caroline Garber, DNR Environmental Studies Section Chief, welcomed TAG and Toxics Committee members.
- **Review of Meeting Notes** – No changes to the meeting minutes of February 4, 2002 were noted.
- **Review of Meeting Agenda -** C. Garber reviewed the agenda and asked for comments. No suggestions for additional items for the agenda were brought forward. C. Garber proposed that the 11:15 a.m. discussion of policy issues be moved up just after discussion of the rule development schedule, to make the overview of where department staff are in drafting the rule proposals.

II. NR 445 Rule Development Schedule – Caroline Garber, DNR Environmental Studies Section Chief, presented a schedule for the proposed rule revision. The goal is to have the rule package ready for the June 2002 Natural Resources Board meeting (a handout was provided). A timeline for when comments on Draft 5 are due was also discussed - substantive comments and new issues need to be brought forward by April 8th and language suggestions and edits, etc., need to be submitted by April 23rd, in order for them to be considered in time to make it into the 6th draft, which is the draft that will be in the rule package that will be sent to the Natural Resources Board in June 2002.

III. Policy Issues - C. Garber, DNR Environmental Studies Section Chief, discussed outstanding policy issues briefly as well as comments received to date on Draft 4 of the rule proposal.

- *Question* – M. Steinberg asked if the comment DNR received from the UW- Extension SHWEC (Solid & Hazardous Waste Education Center) have been incorporated into Draft 5, which was handed out at the meeting.
- *Answer* – C. Garber responded that those changes had not been made to the rule draft yet.

IV. Overview of Structure of Proposed Rule Revisions -Andrew Stewart, DNR Air Management Engineer, presented Draft 5 of the proposed rule language, starting with an overview of the modified structure of the rule (modified vs. Draft 4, to meet rule drafting procedures and allow for a phase-in of the new NR 445 proposed requirements, while maintaining current standards).

- *Question* – H. Handzel, regarding the construction permit language, asked if the rule would address the current problem of the state requiring a permit if emissions of a federal HAP increase.
- *Answer* - C. Garber and A. Stewart said they were not sure exactly what was meant and would try to find out more about the issue and respond at a later date. *(Drafters Note: This question pertains to s. NR 406.04(2)(h). Jeff Hanson, DNR Air Management, will follow up directly with H. Handzel on this issue.)*

- *Question* – B. Fassbender, regarding proposed language in NR 406.07(2) that said new/modified sources must meet NR 445 at startup, asked why the rule stated that here.
- *Answer* – C. Garber said that if the requirements of NR 445 are in a construction permit, those requirements might become federally enforceable. In order to minimize this from happening as a result of the revisions to NR 445, a proposal is being made to allow new/modified sources to use the compliance certification process in lieu of construction permit in many situations. By having compliance requirements placed in the operation permit, the source does not have the requirements in the construction permit. The proposed change to 406.07(2) is needed to ensure that new/modified sources in this situation correctly identify applicable compliance standards and deadlines under NR 445.
- *Question* – H. Hofmeister asked if this provision was only for new/modified sources
- *Answer* – A. Stewart said that it is only for new or modified sources.
- *Question* – H. Handzel asked if using a certification process also can get around the issue of having to put a lot of conditions in the construction permits
- *Answer* – A. Stewart and C. Garber stated that all sources subject to NR 445 requirements, except those requiring BACT or LAER could use the certification process rather than an enforceable permit (or administrative order), until the operation permit is issued or renewed..
- *Question* – H. Handzel asked if a source shows that it can limit usage of a product, it meets the Ambient Air Concentration (AAC) standard, then it just needs to certify and it doesn't need a permit.
- *Answer* – A. Stewart responded that no permit would be needed in this case. However, enforceable conditions for the product limitation would be need to be added to the source's operation permit upon its renewal.
- *Question* – J. Beasom asked if you could be an existing facility and certify for one chemical that you are below the thresholds or AACs and be in the "new" rule, and then for the other pollutants, you could remain under the old rule (until the compliance date for existing sources).
- *Answer* – A. Stewart said that a source could do that.
- *Comment* – B. Fassbender asked for a more clear description for how a source could do that in the rule, so it was clear to sources that this was an option. In addition, it should be clear that once a source opts in to the requirements of subchapter III in the new rule, it is no longer subject to the requirements in subchapter II.
- *Question* – R. Salcedo asked about how the term disposal was defined and why the term "controlled discharge" was used.
- *Answer* – A. Stewart said he used the term to mean a licensed disposal activity as the term is used in the solid and hazardous waste rules.
- *Comment* – R. Sherman stated that if the term uncontrolled disposal is used, it would refer to a spill.
- *Question* – B. Fassbender asked if a source is not subject to the diesel engine language in NR 445.09, does it qualify for the general fossil fuel exemption.
- *Answer* – A. Stewart said that this is correct.

V. Relationship between Federal and State Hazardous Air Pollutant Rules - Andrew Stewart, DNR Air Management Engineer, presented an overview of this topic (see handout).

- *Comment* – B. Fassbender said that Federal MACT (Maximum Achievable Control Technology) standards cover emission units and operating practices. Although he would like to see all emissions from these processes excluded from NR 445, the DNR's proposal to consider surrogate chemicals and categories of HAP in determining whether the MACT standard applied to NR 445 chemicals appears to be a positive step. He also said that the proposal to repeal the anti-backsliding provision in the current rule is a position that industry has been advocating.
- *Comment* – H. Hofmeister stated that the printing MACT looked at HAP emissions from tanks, cleanup operations, and other sources and that EPA exempted some sources because they were considered insignificant sources of HAPs. DNR should follow the EPA lead and not re-examine these sources.
- *Response* – A. Stewart and C. Garber stated that the Department believes that sources exempted from the MACT are subject to NR 445 review because there is no emission standard established

for them under S. 112 of the Clean Air Act. C. Garber explained that all of the MACT standards will be promulgated by May 2004, so that by the time many sources must comply with the revised NR 445, they will know exactly what the federal requirements will be.

- *Comment* – J. Beasom said that at some time in the future, he thought DNR should delete all 188 federal HAPs from NR 445
- *Response* – C. Garber explained that many sources of the 188 federal HAPs are not addressed by the federal MACT rules. EPA addresses certain problems on a national scale, but Wisconsin still may have local HAP issues that can't be addressed by S. 112 of the Clean Air Act. MACTs do not cover all source categories; and in most cases does not cover non-major sources.
- *Comment* – B. Fassbender stated that DNR was trying to define MACT regulated sources as narrowly as possible, but he believes that if EPA has made a determination that there is no risk, we don't need to regulate these sources any further. In his opinion, it comes out to the listing protocol. The listing protocol defines the minimum amount of information needed so a chemical doesn't have to be listed.
- *Response* – C. Garber explained that MACT standards are not based on risk. EPA has not made determinations that there is no risk. The risk assessments will be done in Phase 2 of the federal HAP program, the residual risk program.
- *Question* – R. Salcedo asked what the purpose of the federal residual risk program is?
- *Answer* – C. Garber and E. White explained that this program examines the risk that remains after MACT standards are applied to source categories. They said that program is still developing and whether it will address all significant risks at a local level or if it will address only the most significant risks from a national perspective, remains to be seen. In some cases, there may be significant differences in how the federal and state HAP programs address risks and emissions of HAPs.
- *Question* – E. Wilusz asked about the risk based alternative compliance options in the proposed NR 445. Does one include the MACT sources in the risk based alternatives?
- *Answer* – C. Garber stated that it depends on the MACT and on the risk based alternatives (a new risk based alternative is proposed in the discussion to follow). A. Stewart explained that all emission sources would be covered in the facility 10-5 risk analysis, while only regulated sources under NR 445 (i.e., not MACT sources) would be covered in the 10-6 risk analysis.
- *Question* – C. Terrell asked about MACT standards that use a surrogate chemical as the basis of compliance determination, instead of listing a larger list of HAPs. She wanted to know if MACT standards specifically list which chemicals are covered.
- *Answer* – E. Wilusz and A. Stewart said that in the preamble for MACT standards, they often mention which chemicals are covered. A careful analysis of each MACT standard is needed to fully understand exactly which chemicals were considered when promulgating the standard.
- *Comment* – C. Terrell suggested that fact sheets be created for each industry sector covered by MACT standards and also by NR 445, to make the requirements clear for affected companies.
- *Response* – C. Garber responded that the Department would address the interaction of NR 445 and MACT in the proposed rule (but explaining how this interaction works for each MACT standard will not be done in the revision).
- *Question* – C. Terrell asked what someone would have to do to "backslide" (to increase emissions for HAPs), if a MACT standard was less restrictive than a NR 445 standard.
- *Answer* – A. Stewart said that to do this, a source would have to submit an application to modify a permit before it could emit more than a current permit would allow.

VI. Policy Issues Continued

- Listing – C. Garber stated that DNR received a number of comments on the issue of documenting how chemicals are listed in NR 445.

- *Comment* – C. Terrell wants a time certain by which DNR drafts are rule revision.
- *Comment* **–** J. Beasom said that fixing a time certain might be difficult because the rule revisions might represent varying amounts of work.
- *Discussion* –several comments were made about the merits of having a more or less rigid timeframe for when rule revisions would occur.

- *Question* – M. Werner asked if there is language in the rule about how the report to the board (highlighting changes in the science of toxicology and our understanding of hazardous air pollutants) is used. For example, does the report include all the changes, or just some of them, and if some are removed, what is the process for removing those chemicals from consideration? He suggested that rule language should spell out the intent of the report and how it will be used.
- *Comment* – B. Fassbender said it was the constant rulemaking and flux in requirements that is a problem for sources. If new information comes out, we should act on it, but constant rulemaking is a problem as well.
- *Comment* – H. Hofmeister suggested that the terms "shall consider not listing" seems to contradict that only chemicals that are found to present a hazard, are to be listed. There is no guidance on how this consideration is made.
- *Comment* – B. Fassbender said that the Department has to determine that a chemical poses a risk that needs to be regulated to protect public health, in order to list it. The term presumption is not appropriate here.
- *Response* – C. Garber responded that the Department's finding is to first look to other sources of scientific information, and then make a reasonable and rational finding relative to whether the substance could be a hazardous air pollutant (not whether it in fact is emitted in Wisconsin, but rather it is capable of being emitted). The process the Department uses is not described in the rule itself, but the proposal will add some language that better describes the process that is used.
- *Comment* – J. Hausbeck said that he supports where the Department is coming from. These other scientific bodies have more expertise and resources than the state has and it is prudent to use them.
- *Response* – B. Fassbender stated that his point is that you don't have to do the scientific analysis, but maybe the next step is to determine that there is a threat in Wisconsin. Just because it is on the list, does not mean there is a threat.
- *Question* – A. Stewart asked Bob Fassbender if he meant that an independent review had to be done on each chemical.
- *Response* **–** B. Fassbender responded that scientific review need not be done on every chemical but perhaps an individual review and finding of the need to regulate each chemical was needed.
- *Comment* – J. Schoepke suggested that the de-listing issues should have equal weight.
- *Comment* – B. Fassbender said that you can't give third parties the proxy for your finding.
- *Comment* – P. Stevens (referring to language for listing criteria to exclude chemicals with TLVs > 99 parts per million) said that he did not understand why the language was in the rule because those chemicals were already removed from the rule proposal.
- *Comment* – M. Steinberg said that the Department needs to clarify its decision making to specify certain criteria that when met, require the Department to not list a chemical. Additionally, the Department should list other criteria for which the Department should have more discretion and "shall consider not listing" a certain chemical (rather than being required not to list).
- *Comment* – M. Werner stated that he was in favor of a deliberative process on which ones might be removed from the proposed list, rather than the other way around.
- *Comment* – H. Hofmeister thought that it is a bigger burden on the agency now (the way the rule is currently crafted) to have so many chemicals to wade through. Any way to limit the list "up front" is good.
- *Comment* – M. Werner said that he still has concerns about the basis of the rule. He is concerned about bioaccumulation and this approach, which considers only inhalation health effects, would exclude chemicals of interest. To use the language "where the primary risk is inhalation" seems imprecise.
- *Answer* – C. Garber said that this language may need to be re-written to more accurately reflect the Department's intent.

[Lunch Break]

VII. Status of other policy issues - *Caroline Garber, DNR Environmental Studies Section Chief*
Purpose: To identify policy issues and TAG comments that department staff are continuing to address

- Due Diligence – Andy Stewart, Air Management Engineer, described the language for this concept in the rule. Since the concept will apply not only to NR 445 sections, but also to permitting and inventory reporting, he listed the sections where this language is found in the various codes. [Note: these cross-references are available on the NR 445 revisions webpage]
  - *Comment* – J. Heinen asked if DNR could develop a list of HAPs that need to be reported from various industrial sectors.
  - *Question* – C. Terrell, referring to the due diligence provisions which shelter a source from retroactive violations (once an overlooked chemical or violation has occurred), asked how and when citizens and DNR would be notified that a new substance or a violation of a standard was later found.
  - *Answer* – A. Stewart stated that since a source would then be required to modify a permit or comply with an administrative order, that the public would be notified through the current process that exists for permits and administrative orders.
  - *Question* – C. Terrell asked about what timeframe would apply for a source that had to report to the emissions inventory, once it was discovered that they should have, but did not.
  - *Answer* – A. Stewart said that the error would be corrected during the next NR 438 reporting cycle. Sources must report their last calendar year's annual emissions by March 31 of the following year.
  - *Comment* – J. Beasom said that some of this language implies that errors are reported only after a source has time to hire a consultant and verify its revised information. It is a good idea to add another section here to let a source notify the Department within a certain number of days, that it has new information about emissions.
  - *Discussion* – There was further discussion on this topic, with the general agreement that rule language should describe what the source's obligation is, once it determines that a new HAP exists or they are over a threshold or standard.

- Diesel Engines – Andy Stewart, Air Management Engineer, presented the Department's proposal for control of diesel particulates. The rule requires all stationary sources (as defined in federal non-road engine definitions) and Wisconsin Administrative Codes to use the federal "on-road" diesel fuel within 6 months after the effective date of the rule. The expectation is that people will not have to dump existing stocks of fuel, but the next purchase of fuel for regulated engines will be on-road diesel fuel.
  - *Comment* – P. Stevens suggested that the term "purchase of" fuel be used, instead of "use", to reflect this intent.
  - *Question* – C. Terrell asked why the language was so difficult to understand…what are we trying to control?
  - *Comment* – P. White asked why not give a percent reduction for use of particulate control devices.
  - *Response* – A. Stewart said that staff did not want to specify a control requirement because engine standards vary a great deal by engine size and the ability to reduce emissions varies.
  - *Question* – P. Stevens said he wanted to know the cost of this proposal and wanted to know when the final standard would be proposed.
  - *Answer* – A. Stewart said that staff plan on having this work done by the next TAG meeting on April 16th.
  - *Question* – J. Hausbeck asked if the level of particulate control was related to the risk level of one in one hundred thousand.
  - *Answer* – No, the proposal is related to particulate control technology (not only particulate control devices, but engine design as well).
  - *Question* – M. Bentley asked if the technology Andy Stewart was referring to was the Tier 2 & Tier 3 engine standards that EPA has promulgated
  - *Answer* – A. Stewart said that the EPA Tier 2 and Tier 3 standards are somewhat related, but one also may have to consider innovative engine design and particulate control technology.
  - *Question* – J. Beasom asked about how one defines when an engine is modified.

- *Answer* – A. Stewart said that there are federal definitions of when a engine is rebuilt and that staff will consider clarifying the existing language on this issue.
- *Comment* – C. Terrell said that diesel engines that need particulate control not only need to use the proper fuel but also need to have the engine maintained properly. The need for proper maintenance should be added to the requirements for these sources.
- *Comment* – S. Rosenberg said that the Madison Gas and Electric Company has maintenance requirements for its diesel engines in its permits.
- *Question* – P. Stevens asked about the definition of a seasonal source and whether an engine that is not present during the entire working season is regulated.
- *Response* – A. Stewart said that the engine has to be there the entire working season to be regulated.
- *Question* – C. Terrell asked if this section on diesel engines (NR 445.09) is a stand alone section of the rule.
- *Answer* – A. Stewart and C. Garber said that one also needs to consider NR 445.07, because the burning of diesel in anything other than an internal combustion engine regulated in NR 445.09 is exempt as a virgin fossil fuel.
- *Question* – R. Salcedo asked about the maintenance requirements for the diesel control devices.
- *Answer* – A. Stewart said that the next revision will contain clarification for the control devices that say the equipment must be properly operated and maintained.

- Compliance Demonstration and Certification – Andy Stewart, Air Management Engineer, discussed how sources would show compliance with the revised rule.
- *Comment* – B. Fassbender asked about the stack thresholds for carcinogens without unit risk factors. He thought that those chemicals without unit risk factors will kick people out of the compliance option to meet the 10-5 risk modeling option (for the entire facility).
- *Question* – M. Steinberg asked how to calculate the 10-5 risk. Does the term cumulative risk mean that you add the risk from each chemical?
- *Answer* – J. Myers said that you would add the risk for each chemical – addition is the default assumption used routinely in risk analysis at this time.
- *Question* – B. Fassbender asked about the difference between certification and a permit to make sure that sources are in compliance with the rules.
- *Answer* – A. Stewart said that the certification will suffice in the interim, until a source has its permit revised. At that time, those conditions will be placed into a permit.
- *Question* – C. Terrell asked about how the process would work for having the Secretary of DNR approve the addition of sources to the EMS provisions that for now only include foundries.
- *Question* – E. Wilusz asked what is the emission being put into a permit in the case of an EMS and how would it be put into a permit.
- *Answer* – A. Stewart said that these issues are important, and that the foundry EMS group (the BRAT Co) will develop answers to those questions. The language in the rule is intended to be an initial proposal that will be refined as a result of further comments and discussion.

- Compliance option for 10-6 risk on a pollutant by pollutant basis – Andy Stewart, Air Management Engineer, presented a new proposal to allow sources to use dispersion modeling to show that individual carcinogenic HAPs do not pose a risk greater than one in one million. (See Hand-out) He described this as another "off-ramp" that is analogous to the modeling "off-ramp" that was introduced to show compliance with the non-cancer standards in NR 445.
- *Comment* – R. Salcedo commented that one of the slides suggested that the compliance options were in some sort of hierarchy, which he took as meaning that the preferred policy choice was listed first.
- *Response* – C. Garber said that this was not meant to show a hierarchy, but to represent what staff thought was the normal set of steps a source might evaluate to determine how it might comply with the revised rule.
- *Question* – E. Wilusz asked what type of modeling would be allowed to determine compliance.
- *Answer* – A. Stewart said the modeling protocols are what we had already discussed for non-carcinogens and that this modeling can also be applied to carcinogens. Further guidance can be developed if needed to refine the proposal.

- *Question* – C. Terrell wanted to know the differences between facility risk modeling to meet 10-5 risk vs. individual chemical modeling to meet a risk of 10-6. She thought it would still be necessary for the individual risk modeling to be added up to make sure the facility risk in this case adds up to less than 10-5. She also wanted to know what was the environmental benefit of doing this.
- *Answer* – A. Stewart said the current proposal would not put a cap on the total cumulative risk presented by the individual HAPs. Previous experience has shown that typically one or two HAPs drive the risk number. If the 10-6 option gives sources an incentive to reduce emissions below 10-6, there is a benefit that often times is not achieved if BACT is the only compliance option available to a source. A BACT review for carcinogens many times may result in a time consuming and expensive technology review. However, for many HAPs (due to costs to control a relatively small number of pounds of HAPs), the analysis often results in a decision not to control emissions further. The result in this case is money spent without any reduction of emissions.
- *Question* – L. Fernandez asked how an existing source could use the provision of the revised rule.
- *Answer* – A. Stewart stated that a source, after the effective date of the rule, would have to submit a request for a permit modification if existing permit conditions were more restrictive than the revised standard in the rule or if a source wished to use a different compliance option that is allowed in its current permit.

- Coal Dust – Jeff Myers, Air Management Toxicologist, presented the staff's revised proposal for coal dust (see handout) Under the proposal, coal dust would be listed in NR 445 with a twenty-four hour average ambient air concentration of 21.6 ug/M3 and 9.6 ug/M3 for bituminous and anthracite coal, respectively. Sources could demonstrate compliance through dispersion modeling . Or, sources could be exempted if they had approved fugitive dust control plans or permit conditions that met or were equivalent to NR 415 RACT requirements and, for sources handling over a certain tonnage/year (not yet specified), conduct ambient monitoring. *Question* – S. Rosenberg asked about the monitoring requirements for sources above a certain size. She wanted to know what was meant by coal throughput. Does it mean emissions of coal, use of coal, amount of coal stored or the size of the coal pile.
- *Answer* – J. Myers stated that staff are still investigating how to find a measure of coal handling that is representative of the likelihood of a source having coal dust emissions, but that this has not been answered yet.
- *Comment* – R. Fassbender said that the cost of installing air monitors for two years would result in sources all trying to use dispersion modeling to show that they meet the ambient air concentrations for coal dust.
- *Question* - R. Sherman asked for additional details on what would be involved in taking two years worth of sampling.
- *Answer* - J. Myers stated that samples would be taken every 6 days during a 2 year period with a predetermined number of samples being analyzed for coal dust.
- *Question* - P. White asked what a source would have to do if they did not want to use the proposed monitoring exemption.
- *Answer* - J. Myers stated that the source would have to demonstrate compliance with the 24-hour ambient standard and that would typically be done using dispersion modeling.
- *Comment* - P. White commented that demonstrating compliance with dispersion modeling would be easier for a source to do than to conduct 2 years of monitoring.
- *Response* - C. Garber commented that she was going to have additional discussion with the air program modelers to better understand any modeling issues that may be involved.
- *Question* - C. Terrell asked whether it would be better to require all sources to meet the RACT requirements instead of creating an exemption .
- *Question* - S. Rosenburg asked whether the proposal was based on handling/storage capacity or coal thruput.
- *Question* - P. White asked what we trying to accomplish by relating the exemption language to the requirements in NR 415.
- *Question* - What criteria are we looking at to determine the monitoring levels in the exemption.

– *Answer* - J. Myers responded that we are looking at historical data in areas where we have had problems with fugitive dust from coal piles in the past. However, site selection can be difficult because problems can occur from smaller coal piles if they are poorly managed and located close to property lines, as well as from larger piles.

VIII. Other Business/Next Steps/Next Meeting

C. Garber asked people to submit substantive issues and comments on Draft #5 by April 8 and language suggestions and minor edits (typographical errors, etc.), by April 23, so that staff would have sufficient time to consider them before drafting Draft #6 of the rule revision.

The next TAG meeting is scheduled for Tuesday, April 16th at the same time (9:30 am – 3:30 p.m.) in the first floor conference room of the Department of Commerce Building, located in Madison at 201 W. Washington Ave.

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